

Appln No. 10/727,245
Amdt. Dated January 12, 2006
Response to Office Action of November 16, 2005

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REMARKS/ARGUMENTS

The Office Action has been carefully considered. It is respectfully submitted that the issues raised are traversed, being hereinafter addressed with reference to the relevant headings appearing in the Detailed Action section of the Office Action.

Objections

The Examiner has objected to the drawings because they fail to show details of the printer controller, printhead module and rows of printing nozzles as described in the specification.

However, the Applicant submits that details of these features are clearly shown in the drawings.

In particular, the printer controller is shown in Figure 3. Furthermore, the printhead module having rows of printing nozzles is shown in Figure 254.

The Applicant respectfully requests that the Examiner withdraw the objection to the drawings.

Claim Objections

The Examiner has objected to claim 5 as the Examiner does not understand that if one printhead module is selected then you cannot have a different number of nozzles for one printhead module.

The Applicant respectfully submits that claim 5 is intended to state that each printhead has a different number of nozzles, not as the Examiner has interpreted the claimed wherein the selected printhead has a different number of nozzles. As such, to clarify claim 5, it has been amended to specify:

"...the printer controller being configurable to supply the dot data to a selectable one of a plurality of potential printhead module types, each printhead module type having a different number of nozzles for receiving the dot data.

The Applicant respectfully requests that the Examiner withdraw the claim objection in view of the clarifying amendments to claim 5.

Claim Rejections – 35 USC § 102

At page 3 of the Office Action, the Examiner has rejected claim 1 as being anticipated by Silverbrook (US Patent No. 6,857,724). The Examiner has also rejected claim 5 as being anticipated by Tajima (JP 401216852).

Reconsideration and withdrawal of the rejection is respectfully requested in light of the following comments.

The Examiner has stated on page 4 of the Office Action that Silverbrook shows the element of *"the printer controller being configured to order and time supply of the dot data to the printhead modules in accordance with their respective widths"*. In particular, the Examiner has cited column 2, lines 23-30 of Silverbrook which states:

*"described above, ink is ejected from the nozzle chamber
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As can be seen in FIGS. 3 and 9, the printhead chips 186 are each positioned at an angle with respect to a straight line running the length of the printing zone 120. This facilitates a measure of overlap at adjacent ends of the printhead chips 186 to ensure printing continuity."

This highlighted section of Silverbrook refers to printhead chips being positioned angularly to create an overlap between the printhead chips. Nothing in this sections refers to a printer controller which is configured to order and time supply of the dot data to the printhead modules in accordance with their respective widths, as required by claim 1.

The MPEP states at §2131 entitled *"To anticipate a claim, the reference must teach every element of the claim"* that:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."
Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Applicant submits that column 2, lines 23-30 of Silverbrook fails to disclose each and every element as set forth in claim 1, either expressly or inherently described. In particular, Silverbrook fails to expressly or inherently describe the claim element of *"the printer controller being configured to order and time supply of the dot data to the printhead modules in accordance with their respective widths"*. Therefore, the Applicant submits that in light of MPEP §2131, Silverbrook does not anticipate claim 1.

In regard to claim 5, this claim has been amended to incorporate the subject matter of claim 6. As the Examiner has not relied on a single document for disclosing all the claim elements of the claim, the applicant respectfully requests that the claim rejection be withdrawn. Comments regarding the obviousness rejection of the subject matter of claim 6, now incorporated in claim 5, will be discussed below.

Reconsideration and withdrawal of the claim rejection is respectfully requested.

Claim Rejections – 35 USC § 103

At page 3 of the Office Action, the Examiner rejects claims 2 and 3 as being unpatentable over Silverbrook in view of Hackleman et al (US Patent No. 5, 719,609). Furthermore, the Examiner has rejected claim 4 as being unpatentable over Silverbrook as modified by Hackleman et al and further in view of Kamoshida et al (US Pub No. 2002/0075339). The Examiner has also rejected claims 6 to 8 as being unpatentable over Tajima in view of Oshima (US Pub No 2002/0158934).

Reconsideration and withdrawal of this rejection is respectfully requested in light of the following comments.

The MPEP states at §2143 *"Basic Requirements of a Prima Facie Case of Obviousness"* that:

"... three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally

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available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

The Examiner has relied upon Silverbrook for disclosing the feature of *"the printer controller being configured to order and time supply of the dot data to the printhead modules in accordance with their respective widths"*. As has previously been indicated, the Applicant submits that Silverbrook does not expressly or implicitly disclose this element of the claim.

Therefore, when the teachings of Silverbrook are combined with Hackleman and Kamoshida et al, the combination would teach to provide a printer controller which can control the supply of dot data to a plurality of printhead modules. However, the combination fails to fairly teach or suggest the claim limitation of *"the printer controller being configured to order and time supply of the dot data to the printhead modules in accordance with their respective widths"*. Nothing in the combination would fairly teach or suggest that the printer controller order and times the supply of dot data to the printhead modules in accordance with the respective widths of the printhead modules.

Therefore, the Applicant submits that the references when combined fails to teach or suggest all the claim limitations, as required by the third basic requirement of a prima facie case of obviousness.. As all three basic requirements must be met in order to reject a claim as being obvious and thus unpatentable, the Applicant respectfully requests that this claim rejection be withdrawn with respect to claims 2, 3 and 4.

In regard to claim 5, as previously mentioned, this claim has been amended with the subject matter of claim 6. Claim 6 has subsequently been cancelled. Furthermore, the claim has been clarified to specify *"the at least one parameter value indicating which of the potential printhead types the printer controller has been configured to supply the dot data to"*.

The Examiner has stated that Oshima discloses non-volatile memory for storing at least one parameter value, the at least one parameter determining which of the potential printhead types the printer controller has been configured to supply dot data. In particular, the Examiner has indicated that paragraph [0043] of Oshima which states:

"[0043] In the printing apparatus having the above-described configuration, the MPU 1701 can acquire the printhead characteristic data from at least one of the host, non-volatile memory of the printing apparatus, and non-volatile memory of the printhead. In the case where the printhead characteristic data can be acquired from a plurality of data sources, the data can be acquired selectively".

It is apparent from this paragraph that the printing apparatus can acquire printhead characteristic data from non-volatile memory. However, the printhead characteristic data does not indicate *"which of the potential printhead types the printer controller has been configured to supply the dot data to."* The printhead characteristic data only indicates physical characteristics of the printhead.

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Thus, when the teachings of Tajima are combined with Oshima, it is apparent that data indicative of the different types of printhead modules could be obtained from non-volatile memory. However, Tajima in view of Oshima fails to fairly teach or suggest that the data is indicative of "*which of the potential printhead types the printer controller has been configured to supply the dot data to.*" It would be providing the teachings of Tajima in view of Oshima an impermissible gloss to suggest that the combined teachings teach that the data obtained from the non-volatile memory indicate which of the potential printhead types the printer controller has been configured to supply the dot data to.

The Applicant therefore respectfully submits that claim 5, as currently amended, is patentable over Tajima in view of Oshima.

Reconsideration and withdrawal of this rejection is respectfully requested.

In view of the foregoing, it is respectfully requested that the Examiner reconsider and withdraw the rejections under 35 U.S.C. §102(a) and 35 U.S.C. §103(a). The present application is believed to be in condition for allowance. Accordingly, the Applicant respectfully requests a Notice of Allowance of all the claims presently under examination.

Very respectfully,
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